

Remarks/Arguments

Applicants have received and carefully reviewed the Office Action of the Examiner mailed April 27, 2010. Currently, claims 1-8, 10-15, 19-21, 24-29, 33, 34, 38-40, and 44-46 remain pending and have been rejected. Favorable consideration of the following remarks is respectfully requested.

Claim Rejections – 35 USC § 103

Claims 1, 4-7, 10, 13, 20, 21, 24, 27, 34, 38-40, and 44-46 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel et al. (U.S. Patent No. 6,171,327), hereinafter Daniel. After careful review, Applicant must respectfully traverse this rejection.

“All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). (MPEP § 2143.03). Nowhere does Daniel appear to disclose “a connector connecting the proximal section and the distal section of the elongate shaft, wherein the connector is fixedly secured to both the proximal section and the distal section ... and a filter coupled to the shaft” as recited in independent claim 1 and, *mutatis mutandis*, in independent claims 10, 24, 39, and 40.

Instead, Daniel appears to disclose a filter 21 (Figs 1 and 3) or 121 (cited Fig. 9, as well as Figs. 5-8) the distal end of which is connected to wire 26, for example by cyanoacrylate or epoxy adhesive. Wire 26 is disposed within a separate catheter 112 having a proximal section 114 and a distal section 116 by highly flexible or braided section 132. Accordingly, Daniel does not appear to disclose a filter coupled to a shaft, said shaft including a connector fixedly secured to both the proximal section and the distal section of the shaft having the filter coupled thereto. As discussed at col. 5, lines 62-65 of Daniel, braided section 132 is drawn tight for removal from wire 26 and filter 21. Applicant must respectfully disagree with the Examiner’s assertion that Daniel is silent regarding a filter coupled to a shaft. Daniel appears to disclose filters 21 or 121 are connected to wire 26 and does appear to indicate that filters 21 or 121 are not connected

to catheter 112 segments 114, 132, or 116 which are explicitly disclosed as being removable from filter 121 and wire 26. The filter in question may not be connected to catheter 112, as suggested by the Examiner in the rejections and the Response to Arguments, while retaining the respective functions of the filter/wire combination and the delivery/retrieval catheter removable therefrom as taught by Daniel. Thus the proposed modification Daniel would appear to render the device of Daniel unsatisfactory for its intended purpose of providing a filter mounted to a wire and a delivery/retrieval catheter having a distal housing, said catheter having a means for altering the effective length of the catheter to facilitate removal of the catheter from the wire. (See MPEP § 2143.01 Part V.)

Further, the device of Daniel appears to rely upon a delivery catheter 12/112 for a filter 21/121, said delivery catheter having a filter housing 18/118 disposed at the distal end of catheter section 16/116. During deployment, catheter filter 21/121 is said to be contained within housing 18/118 and released when housing 18/118 is withdrawn. Were the filter to be mounted about catheter 12/112, it would appear to be impossible for the filter to be deployed from within the catheter about which it is mounted in the modification proposed by the Examiner.

Additionally, it would appear to be impossible to remove section 16/116 of the catheter and housing 18/118 from the body, as described at col. 5, lines 29-47 or lines 62-64, while the filter 21/121 and the shaft to which it is mounted remain positioned to trap debris. Further, were the proposed modification to place the filter on the catheter and the catheter/filter to remain in place, the guidewire would appear to be unavailable for advancing surgical instruments as taught at column 5, lines 48-50. Further still, since the catheter 12/112 could not be partially withdrawn from the body while the filter remains in place, one of ordinary skill in the art would realize that the connector would remain in the body and would be inaccessible for decoupling to remove either segment 14/114 or segment 16/116 and would not be motivated to make the suggested modification. Thus the modified catheter mounted filter would be shown to be additionally unsatisfactory for its intended purpose and also would be shown to require impermissible alteration of the principle of operation of Daniel. (See MPEP § 2143.01 Part VI.)

Therefore, Daniel does not appear to teach all the claim limitations, as is required to establish a *prima facie* case of obviousness and Applicant respectfully requests that the rejections of independent claims 1, 10, 24, 39, and 40 be withdrawn.

If an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988). (MPEP 2143.03)

Accordingly, claims 4-7, 13, 20, 21, 27, 34, 38, and 44-46, which depend from nonobvious independent claims 1, 10, 24, 39, and 40 respectively, also are believed to be nonobvious and Applicant respectfully requests that the rejections be withdrawn.

Claims 2, 3, 6, 11, 12, 25, and 26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Daniel in view of Stevens et al. (U.S. Patent No. 6,029,671), hereinafter Stevens. After careful review, Applicant must respectfully traverse this rejection.

As noted above, independent claims 1, 10, and 24 do not appear to be obvious over Daniel. The addition of Stevens, said to disclose a proximal section having a first flexibility and a distal section having a second flexibility, does not appear to overcome the deficiencies of Daniel as applied to independent claims 1 and 10 which do not include that limitation. With respect to claim 24 which does include the limitation, it should be noted that the disclosure of Stevens does appear to overcome the remaining deficiencies of Daniel. Further, Stevens does not appear to explicitly disclose that the two shaft segments necessarily have different flexibilities. One of ordinary skill in the art would be aware that the flexibility is a function of both the material and the geometry of the moiety in question and that a difference in composition does not necessarily result in a difference in flexibility which would be recognized as inherent by one of ordinary skill in the art. (MPEP 2112.)

Flexibility, the inverse of stiffness, may be computed as the length of the member divided by the product of the modulus of elasticity and the second moment of area. Thus a unit beam having a first modulus of elasticity may have the same flexibility as, or example a unit beam having a different modulus of elasticity, but with a compensating

second moment of area. Similarly, the flexibility of the beams may be matched by altering the relative lengths and/or by altering the relative lengths, moduli of elasticity, and second moments of area simultaneously. Thus a mere change in material is insufficient to necessarily (inherently) disclose a difference in flexibility.

For at least these reasons, Daniel in view of Stevens does not appear to disclose all the claim limitations of independent claims 1, 10, and 24, as is required to establish a *prima facie* case of obviousness.

Accordingly claims 2, 3, 6, 11, 12, 25, and 26, which depend from nonobvious independent claims 1, 10, and 24 respectively, are also believed to be nonobvious and Applicant respectfully requests that the rejections be withdrawn.

The Office action includes, beginning at page 4, text which appears to be a continuation of the rejection under §103 over Daniel as the sole reference. Claims 4, 5, 7, 8, 13, 14, 15, 19, 20, 21, 24, 27, 28, 29, 33, 34, 38, and 40, presented in various overlapping groups, have been discussed above and are believed to be patentable over Daniel under §103. If additional rejections were contemplated, the Examiner is invited to present them in a future non-final Office Action.

With respect to the Response to Arguments, Applicant directs the Examiner's attention to the cited Fig. 4 which appears to disclose details of catheter 112, but fails to disclose a filter disposed about the catheter. The Examiner appears to have misinterpreted Fig. 9 in which the filter 121 is mounted about shaft 26 and in which the filter is partially contained within the distal portion of catheter 112 which includes distal housing 118. Thus one of ordinary skill in the art would recognize that connector 132 joining segments 114 and 116 of catheter 112 does not connect a hypothetical proximal and distal section of the shaft 26 to which the filter 121 is connected. In the alternative, one of ordinary skill in the art would recognize that filter 121 is not connected to catheter 112 which appears to include the connector 132. The operation of the device disclosed by Daniel requires two elongated elements: a wire mounted filter which is both received within the catheter 112 and which may remain in place as the receiving catheter is removed and/or advanced. Thus Daniel does not appear to teach that the connector and

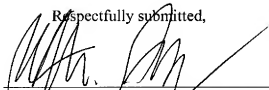
the filter are attached to a single shaft as recited in the claims and does not appear to admit of a configuration which allows the catheter to be removed while the filter remains in position about a wire over which additional instruments may be advanced as taught by Daniels.

With respect to the combination of Daniel in view of Stevens, as noted above, claims 2-3, 6, 11-12, and 25-25 depend from nonobvious independent claims 1, 10, and 24, and thus are believed to be nonobvious as well. Also, as noted above, the mere possibility that the two sections of the catheter 322 may be selected to have different flexibilities, given a specific selection of materials and geometries, is insufficient to ensure that one of ordinary skill in the art would necessarily recognize that a difference in flexibility is inherent in the disclosure of Stevens.

In view of the foregoing, all pending claims are believed to be in condition for allowance. Further examination, reconsideration, and withdrawal of the rejections are respectfully requested. Issuance of a Notice of Allowance in due course is anticipated. If a telephone conference might be of assistance, please contact the undersigned attorney at (612) 677-9050.

Date: June 16, 2010

Respectfully submitted,



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